

April, 2005

Richard J. Codey  
Acting Governor



Fred M. Jacobs, MD, JD  
Commissioner

# NJ Communi-CABLE

## The Communicable Disease Service Welcomes New Program Manager

The New Jersey Department of Health and Senior Services (NJDHSS) Communicable Disease Service is proud to announce that Joe Aiello has been chosen as the new Program Manager for the Infectious and Zoonotic Disease Program (IZDP). Mr. Aiello joins IZDP with 20 years experience in public health and 15 years of experience in acute care hospital administration. Most recently, Mr. Aiello served as Project Manager in the NJDHSS Division of Local Public Health Preparedness and Regional Systems Development.

Mr. Aiello will monitor the incidence and prevalence of communicable and infectious diseases in New Jersey, develop recommendations regarding their prevention and control and communicate these recommendations to health care providers, veterinarians, public officials, policymakers and other relevant associations and agencies. He will also have responsibility to ensure that the surveillance staff receives and evaluates urgent disease reports, and that there is epidemiologic capacity to manage the Communicable Disease Reporting System.

"Immediately I noticed that the Infectious and Zoonotic Disease Program (IZDP) is well staffed with technical experts. It is my hope to contribute to this program by making

their jobs easier through an administrative approach that will allow for a more fulfilling professional experience," stated Mr. Aiello. Additionally, he wishes to foster a stronger relationship between IZDP and local public health entities.

IZDP has not had a program manager for the past several years. "Due to increased funding from the CDC, IZDP has grown rapidly in the past few years. We are looking forward to Joe bringing a sense of unity to this multi-faceted program and are anticipating his overarching guidance for these areas," quoted Dr. Tina Tan, Deputy State Epidemiologist and Medical Director for the Communicable Disease Service.

Returning to the essence of what public health is, appeals to Mr. Aiello. "The work done here in IZDP, controlling the impact that infectious diseases have on society, is based on the principles that originally established the field of public health. And based on current world events, it is imperative that we have the capabilities to respond to both routine and emerging infection outbreaks in an efficient and timely manner."

### NJDHSS Communicable Disease Service

- Eddy Bresnitz, MD, MS, Deputy Commissioner/ State Epidemiologist
- Janet DeGraaf, MPA, Director, Communicable Disease Service
- Christina Tan, MD, Deputy State Epidemiologist/ Medical Director, Communicable Disease Service
- Suzanne Miro, MPH, CHES, Editor, Health Educator, Communicable Disease Service

The New Jersey Mass  
Prophylaxis Manual Point of  
Dispensing (POD) Operations  
manual is now available online at

<http://nj.gov/health/er/massmanual.shtml>

# Smallpox Spot

The Redefining Readiness Study, conducted by the New York Academy of Medicine, is a survey project which assessed the fears and perceptions of the American public in reaction to terrorist scenarios of smallpox and dirty bombs. The outcome of this research is groundbreaking for public health and emergency preparedness planners, as it addresses concerns and attitudes of the public during a public health event. This study represents the first time that researchers have actively engaged the public and asked them to identify their beliefs and fears about terrorism, with the intent of enhancing planning efforts.

The study consisted of group discussions, random telephone surveys, and a literature review. Over 2,500 randomly selected adult residents in the U.S. were sampled, with an over-sampling of African Americans and people in the two cities (Washington, D.C. and New York City) that experienced the 9/11 attacks. Scenarios were used to gauge the public's reaction to instructions to attend a mass vaccination clinic and the request to "shelter-in-place." According to the study, the scenarios explored the public's reactions to instructions concerning public vaccination sites after a smallpox attack, directions to shelter-in-place following a dirty bomb explosion and perspectives about their belief in current community preparedness planning efforts. Research revealed that far fewer people than expected would follow protective instructions. Respondents stated that they wanted more than information or advice to decide what to do in a terrorist situation; they were looking for decision-making support, not just facts.

Twelve percent of those surveyed felt that the public has a great deal of influence in planning and response efforts; however 62% felt that it was very important that the public works with government agencies and other community organizations to develop plans. Thirty-four percent stated that they were "very interested" or "extremely interested" in helping government agencies and other community organizations to develop plans to help preparedness.

Reluctance to comply with official recommendations for smallpox vaccination is based on lack of concern

about catching the disease, distrust of the government and concern about the vaccine.

To improve cooperation, planners will have to take precautions to protect those at risk for complications; actively involve the public in developing a safe vaccine; build public trust in what government officials would say; provide accurate information to dispel unwarranted lack of concern and provide the public with decision making support.

Based on the study results, the researchers developed several recommendations for public health and healthcare agencies to consider in planning efforts. The public wants facts, plus someone to talk to before hand; experts, plus someone with their interests at heart; someone who knows their medical history and someone they know.

Before the crisis, people could be encouraged to know their risk status and non-government people could be trained to provide information. At the hint of an outbreak, the public should be informed immediately, an official "snow day" should be declared and hotlines should be used to evaluate and screen individuals for contraindications to the smallpox vaccine. Once a case is identified, the vaccine should be given first to the exposed. Strategies to protect those at risk for complications should be implemented. Risk status should be possible without going to sites and trusted sources should be used to get information out.

For a dirty bomb, 59% of those responding say they would comply and remain indoors for as long as the government recommended. Others would not because they were worried about communicating with their loved ones or didn't know what plans were in place in their buildings, their loved ones' buildings or the community for these emergencies. Cooperation increases when people know what the community is doing regarding planning. Many people (77%) said they were interested in learning more and getting involved in planning.

# NJDHSS to Establish Antimicrobial Resistance Project

Peer-reviewed medical journals and mass media outlets alike are casting attention toward a growing threat to public health: antimicrobial resistant strains of bacteria. Dubbed “superbugs” by the lay press, these bacteria are no longer susceptible to the antimicrobial agents that were commonly used to treat them. Historically, antimicrobial resistant bacteria were primarily confined to health care facilities, such as nursing homes and hospitals. However, there is mounting evidence to suggest that antimicrobial-resistant bacterial infections are a substantial problem in the community-at-large as well.

In an effort to control antimicrobial resistance, the New Jersey Department of Health and Senior Services (NJDHSS) is seeking to establish a program to address the issue from a multifaceted, multidisciplinary approach. According to Corey Robertson, MD, Managing Public Health Physician, a multidisciplinary advisory panel that includes epidemiologists, infection control professionals, clinicians, microbiologists, and health educators is essential to the development of an effective approach to antimicrobial resistance issues. “Although the Communicable Disease Service has historically tracked reports of antimicrobial-resistant infections, it is time to take a more broad yet coordinated approach toward controlling the emergence and spread of antimicrobial resistance,” according to Dr. Robertson.

Planned initiatives include assessing the burden of community-associated methicillin-resistant *Staphylococcus aureus* (MRSA) through sentinel providers. Another priority is enhancing the

NJDHSS current surveillance of antimicrobial-resistant bacteria in the state’s 81 acute care hospitals by improving the timeliness and accuracy of information about antimicrobial resistance through the use of up-to-date technology.

The NJDHSS has sought to forge partnerships with agencies and stakeholders that will be invaluable in the fight against antimicrobial resistance. In fact, an Antimicrobial Resistance Work Group, which included representation from various public health care partners located within the state, met for the first time on February 25, 2005. In addition, NJDHSS will strengthen its relationships with the NJ Department of Corrections and NJ Department of Education in order to provide infection control guidance to correctional facilities and schools, respectively.

“Professional and public education will be a big part of our initiatives in antimicrobial resistance. We need to tackle the issues of appropriate antibiotic prescribing among health care providers as well as appropriate antibiotic use among patients. We have already begun to work with the NJ Department of Corrections to educate prison inmates and medical staff on the importance of personal hygiene, sanitation, and the avoidance of risk behaviors associated with the transmission of MRSA,” stated Suzanne Miro, Health Education Coordinator for the NJDHSS Communicable Disease Service.

## Coming Soon !!!

Advanced Forensic Epidemiology  
Joint training for law enforcement and public health officials on  
investigative responses to bioterrorism

## Camden County Responds to Meningitis in Parochial School

An outbreak of serogroup C meningococcal disease (SCMD) occurred during December 2004 among students who attend Parochial School A in Cherry Hill, NJ. Three students became ill with symptoms of bacterial meningitis on Saturday, December 11, 2004 and presented at the emergency room of Hospital A in Camden, NJ. Laboratory results from Hospital A confirmed *Neisseria meningitidis* in the blood of two of the students on Monday, December 13. The third student was epidemiologically linked to one of the confirmed students, but there were no supporting confirmatory lab results for this individual. There was no epidemiological link between all three students aside from the commonality of attending the same school. Two of the cases were epidemiologically linked, and to date there has been no connection to the third case. A source for the outbreak was unable to be determined.

Chemoprophylaxis was given to immediate family and other identified direct contacts on Sunday, December 12. After receiving confirmatory lab results, the parochial school decided, upon recommendations from local, state, and federal health authorities, to support mass prophylaxis and vaccination of the students and faculty of the school.

Parents provided permission for their children to receive medical treatment at a clinic based in the high school gymnasium. Mass prophylaxis occurred on Tuesday, December 14 with 847 people (students and teachers) receiving antibiotics, and mass vaccination occurred on Wednesday, December 15 with 1050 persons receiving the meningococcal vaccine. Both of the clinics were conducted with assistance from the Camden County Department of Health and Human Services (CCDHHS). All three students recovered and were released from the hospital by Friday, December, 17.

Meningococcal disease usually manifests as meningococcemia and/or meningitis. In this outbreak it manifested as meningococcemia, a severe form of bacterial infection in the blood caused by *N. meningitidis* with sudden onset of fever, intense headache, stiff neck, petechial rash, nausea, and often vomiting. *N. meningitidis* can be

transmitted by direct contact through respiratory secretions of the nose and throat of infected people. The incubation period is two to ten days, but on average it is three to four days. A person is no longer communicable 24 hours after starting antibiotic treatment. People can be asymptomatic carriers of *N. meningitidis*. Generally 5 to 10% of people may be carriers, but as high as 25% has been documented in some populations.

Since the early 1990's outbreaks of serogroup C meningococcal disease<sup>1</sup> (SCMD) have been occurring more frequently. Between 1980 and 1993, 21 outbreaks of SCMD in the U.S. were identified that involved from three to 45 cases and most had attack rates higher than 10 cases per 100,000 population. The attack rate for this outbreak was 170 cases per 100,000 population.

The CDC recommendation in an organization-based outbreak is for vaccination to be considered if there are three or more confirmed cases in a three month time period with an attack rate exceeding 10 cases per 100,000. Based on CDC recommendation and the recommendation of NJDHSS and CCDHHS, the school decided to proceed with chemoprophylaxis and vaccination for the students and faculty of the school.

The chemoprophylaxis and vaccine clinics held by CCDHHS at the school were an opportunity to test and assess public health preparedness planning efforts that had been ongoing for the past two years. CCDHHS has a point of dispensing plan, or POD plan, which outlines the steps to provide a mass vaccination and/or prophylaxis clinic in the event of bioterrorism incident at a predetermined location. This public health emergency allowed CCDHHS to apply this plan with a slightly new twist of bringing the POD to a facility that was not a designated site, but a parochial high school.

A few key items were identified during the clinic operations that CCDHHS can improve upon in future POD efforts. The items are as follows:



## A New Vaccine Against Meningococcal Disease\*

On January 17, 2005 sanofi pasteur, the vaccines business section of the sanofi-aventis Group, announced that the U.S. Food and Drug Administration (FDA) has licensed Menactra™, the first quadravalent conjugate vaccine licensed in the U.S. for the prevention of meningococcal disease. Five different types of meningococcal bacteria cause virtually all of the meningococcal disease of the world (types A, B, C, Y, and W-135). Menactra™ is designed to offer protection against four serogroups of *Neisseria meningitidis* (A, C, Y, W-135).

Every year in the U.S. 1,400 to 2,800 people contract bacterial meningitis which can be caused by *N. meningitidis*. Meningococcus is a bacterium that lives in the lining of the nose and throat and can spread from person to person via close personal contact. Meningococcal disease is caused by bacteria that infect the bloodstream, lining of the brain and spinal cord, after causing severe illness. Death results in 10% - 14% of people with meningococcal disease. Of the survivors, 11% - 19% are permanently disabled with conditions such as mental retardation, hearing loss, or loss of limbs. Annually, 300 people die from this fast-acting disease.

On February 10, 2005, the Advisory Committee on Immunization Practices (ACIP) recommended administration of Menactra™ for the following:

- ☐ Children 11 – 12 years,
- ☐ Teens entering high school (for the next two to three years), and

- ☐ College freshman living in dormitories.

Meningococcal vaccine may also be provided to college students who do not live in dormitories and adolescents who want to reduce their risk for meningococcal disease. (CDC, 2005).

Currently the Center for Medicare and Medicaid Services is reviewing the data regarding this new vaccine and will issue a decision about whether it will be added to the list of vaccines for eligible children under the Vaccines For Children Program, (i.e., 0 – 18 years of age).

As effective as this new vaccine has proven to be in sanofi pasteur's studies, it does not protect people against meningococcal disease caused by the type "B" bacteria. Type B causes one-third of the meningococcal cases among infants <1 year of age. Currently no vaccine is licensed or available in the U.S. to target Type B. However, with the ACIP's recommendation to use Menactra™ it will help to prevent this potentially deadly disease among adolescents.

\*The information provided in this article has been excerpted from Q&A Volume 1, Winter 2005, Meningococcus: What You Should Know, Vaccine Education Center at The Children's Hospital of Philadelphia; Centers for Disease Control & Prevention/National Immunization Program, Meningococcal Conjugate Vaccine, February 10, 2005; Press release letter from sanofi pasteur/sanofi aventis, FDA Licenses Menactra™, January 17, 2005.

## 2005 Spring Infectious Disease Summit

May 3, 2005 9:00 am—3:00 pm  
Clarion Hotel and Conference Center  
Cherry Hill, NJ

May 6, 2005 9:00 am—3:00 pm  
Headquarters Hotel  
Morristown, NJ

Registration Opens

March 28th!

# CDRS Corner

## A More Secure Reporting and Surveillance System for New Jersey

The new Communicable Disease Reporting and Surveillance System (CDRSS) will be rolled out in the summer/fall of 2005. Besides having numerous enhanced capabilities, in addition to the basic reporting that was available in the Communicable Disease Reporting System (CDRS), the CDRSS will introduce us to a new world of even more secure data. Patient confidentiality will now be additionally protected by viewing privileges further restricted by new user roles, the incorporation of more secure password systems, and adherence to confidentiality and CDRSS user agreements.

All users of the CDRSS will be assigned a role – either that of a data entry person or an investigator. In addition to a user's viewing privileges being restricted according to their geographical jurisdictions, the privileges will now be further restricted according to the role the user plays in this reporting and surveillance system. Data entry staff will only be able to see the Patient Information screen, the Laboratory Evaluation screen and the Case Classification screen. These people are expected to enter preliminary demographic data and laboratory test results similar to the data entry in the CDRS. Their access to more comprehensively detailed information is not necessary and is therefore appropriately limited. Investigators, on the other hand, will have complete access to all the screens in the CDRSS and be able to record contact tracing, clinical status, signs and symptoms, and risk factors to name a few.

In December 2004, health officers, laboratory managers, infection control professionals, LINC regional epidemiologists and other responsible users were contacted by e-mail with a request to define the roles of their CDRS personnel as either data entry staff or investigators. To date, approximately 86% of the users in the system have had their roles designated, ready to be uploaded into the new CDRSS when the system is launched. If you have not responded with this information yet, please contact Patty Jordan at the contact number below with your list of personnel and the appropriate role for each person and she will add your information to the master user list. User roles are also readily changeable as future personnel and public health

needs dictate.

In addition to having a role in the CDRSS, each user will have to have a new password. All passwords in the CDRSS must be an alpha-numeric combination and a minimum of six characters in length. Current users' passwords will be changed in the CDRSS and each user will have to update his/her password the first time he/she signs onto the new system. Passwords will have to be changed on a regular basis with a 60 day renewal period being considered at this time. An automatic, reminder message will pop-up on the screen to inform users that their passwords need to be changed at the appropriate time.

When users actually sign into the CDRSS, they will see a security screen, which is a confidentiality agreement similar to what consumers would see when opening commercial computer software, namely a message box asking that the user understands and agrees to the previously stated conditions regarding sharing access to, or data from, the secure site. This confidentiality agreement references Title 18 of the United States Code, the Federal Bureau of Investigation and the United States Department of Justice for prosecution as deterrents to tampering with the site itself or the information contained therein.

As well as accepting the constraints of the confidentiality agreement upon login, each user will also sign a CDRSS User Agreement that will be kept on file at the NJDHSS. The CDRSS User Agreement reminds users of the confidential nature of the information on the secure site, requiring that only authorized users access the site for tasks requiring use of the system. Users are not to share passwords or assist other unauthorized personnel in accessing the system. Users are to exit from the system as soon as they are finished actively performing tasks requiring the use of the system – rather than leaving a case up on

*Continued on page 7*



**CDRSS Helplines:  
1-800-883-0059**

## CDRS Corner cont.

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their computer screen while they leave their desk for an extended period of time. Finally, users are required to report any breaches of the system security or potential security vulnerability to the CDRSS Helpdesk or CDRSS Coordinator. All this and more are itemized in the CDRSS User Agreement.

CDRSS users will be required to attend a training session before being given access to the system. At that time, users will sign the CDRSS User Agreement and will update their password. Upon completion of the training session, users will receive a certificate indicating that they have successfully completed the requisite training, signed the requisite documentation and are users in good standing. Any user can be inactivated by the CDRSS administrative staff at any time, so adherence to these security measures can be readily enforced.

Our goal is to enhance the security features inherent in this secure website in order to protect the confidential nature of this medical information. The CDRSS is a comprehensive reporting and surveillance system that permits us to track a patient's history with all incidents of communicable reportable diseases readily available to the appropriate public health officials. These

security enhancements are an additional protective barrier to the already secure website as required by the Centers for Disease Control and Prevention (CDC) for the National Electronic Disease Surveillance System (NEDSS), the requirements upon which the CDRSS has been based. The result - a more secure reporting and surveillance system for New Jersey!

### **Minimum Computer Requirements for Users of the CDRS/CDRSS**

Please ensure that your staff has the appropriate computer capabilities for the new system before we roll it out in 2005. Updated minimum computer requirements for present CDRS and future CDRSS users have been provided by the Office of Information Technology Services (OITS) to share with local IT staff and they are listed on the login page of the CDRS.

### **Contact Information**

For CDRS OITS technical support, call 1-800-883-0059 (toll free) or 609-588-7551 (local calls) or email them at [cdrsadmin@doh.state.nj.us](mailto:cdrsadmin@doh.state.nj.us)

For programmatic help or information regarding the CDRS, call Marlene or Patty at 609-588-7500 or use their individual email addresses below.

[Marlene.bednarczyk@doh.state.nj.us](mailto:Marlene.bednarczyk@doh.state.nj.us)  
[Patricia.jordan@doh.state.nj.us](mailto:Patricia.jordan@doh.state.nj.us)

## Camden County Responds to Meningitis in Parochial School cont.

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better inventory control and tracking, documented chain of custody, clarification of activation of the State Strategic Stockpile (SSS), and improved internal notification and mechanisms for information briefing and dissemination at CCDHHS. There was a small window of opportunity available to make a public health intervention in this outbreak and all parties involved—local health, the school, the hospital - were helpful, open minded, and professional as they collaborated to protect the public health of the community.

A public health emergency of this magnitude provided the CCDHHS an opportunity to work with

traditional partners including the local hospital, NJDHHS, and other LINCSS agencies and to work with non-traditional partners of a parochial high school and the Catholic Diocese. It was a superb effort by all that enabled 93% of the school population to receive antibiotics and vaccinations either through the clinics held at the school, or through private providers and local hospitals.

<sup>1</sup> Heymann, David, et. al. Control of Communicable Diseases Manual, American Public Health Association, Washington, DC 18th Edition, 2004.

<sup>2</sup> CDC. Control and prevention of meningococcal disease and Control and prevention of serogroup C meningococcal disease: evaluation and management of suspected outbreaks: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1997;46(No. RR-5).

# Incidence of *Clostridium difficile*-Associated Disease in Acute Care Facilities in New Jersey

*Clostridium difficile* (*C. difficile*) is a Gram-positive, spore forming anaerobe that causes a spectrum of antibiotic-associated diseases including abdominal discomfort, pseudomembranous colitis, diarrhea, sepsis, and even death. It is the most commonly identified infectious cause of antibiotic associated diarrhea and has been a major cause of nosocomial illness and increasing health costs.

Historically, antibiotic use has been the greatest risk factor for *C. difficile* among hospitalized patients. Cephalosporins, penicillins, and especially clindamycin have been the major players although almost every antibiotic has been implicated in the development of *C. difficile*-associated disease (CDAD). Most studies have focused on the incidence of CDAD in acute-care hospital wards, and incidence rates have ranged from 0.1 to 2%. It is likely that healthcare workers contribute to the majority of transmission through transient hand carriage since the use of gloves has shown reductions in CDAD rates. Since *C. difficile* produces spores that can withstand harsh environmental conditions, the contamination of environmental surfaces may also play a role in transmission. Certain items such as contaminated commodes, telephones, and rectal thermometers have been implicated as potential sources of *C. difficile*.

There is little data on the incidence and overall epidemiology of *C. difficile*. A preliminary analysis of hospital discharge data from the National Center for Health Statistics suggests at least 0.4% of admissions to U.S. acute care hospitals are complicated by CDAD. In addition, previous discharge and hospitalization data may imply a possible increase in hospitalization and death due to CDAD. In long-term care facilities, the incidence may be as high as 1600 per 1000 resident years. As many as 10% of individuals 65 years of age and older may already be colonized with *C. difficile* at the time of admission, suggesting an element of community-acquired

CDAD is increasing. In New Jersey, there have been reports of increased incidence in both acute and long-term care settings.

The basis of these reported increases and reasons for them are unknown. Presumably, increased antibiotic use and inadequate infection control practices may be contributing to the rise. However, sources of *C. difficile* in the community and other venues besides the traditional nosocomial setting might be overlooked. The use of non-sporicidal waterless alcohol gel hand sanitizer may play a role not previously explored. There may also be a role for emerging resistance to metronidazole or vancomycin, common drugs used for the treatment of CDAD, or other microbial factors increasing the virulence of *C. difficile*. All of these factors in the face of apparent increasing rates of CDAD merit a closer examination of this disease.

In February 2005, the NJDHSS distributed a survey to retrospectively evaluate the incidence trends and complication rates of CDAD, as well as to identify infection control practices currently used to prevent and control its spread in health-care facilities in New Jersey. The survey was designed in collaboration with the Centers for Disease Control and Prevention (CDC) as well as with feedback from members of the Northern and Southern Chapters of the Association for Professionals in Infection Control and Epidemiology (APIC).

The survey was sent to Infection Control Professionals at all acute care hospitals in New Jersey and requested information on rates of CDAD over the past four years, infection control practices, and the existing hospital policies in place for patients with CDAD. Data collection is ongoing, and it is hoped that the survey will help NJDHSS to assess objectively whether CDAD is truly increasing among acute care facilities in New Jersey, identify infection control areas that need attention and develop infection control policies for the prevention and control of CDAD.



## Communicable Disease Service Mission Statement

Our mission is to prevent communicable disease among all citizens of New Jersey, and to promote the knowledge and use of health lifestyles to maximize the health and well-being of New Jerseyans.

We will accomplish our mission through our leadership, collaborative partnerships, and advocacy for communicable disease surveillance, research, education, treatment, prevention and control.

**NJ Department of Health & Senior Services**  
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### **The NJDHSS Communicable Disease Service Includes:**

- Infectious & Zoonotic Disease Program (IZDP)
- Vaccine Preventable Disease Program (VPDP)
- Sexually Transmitted Disease Program (STDP)
- Tuberculosis Program (TBP)

**Past editions of the NJ Communi-CABLE are available on the  
Communicable Disease Service website:**

**<http://www.state.nj.us/health/cd/index.html>**

**Welcome to new NJDHSS Communicable Disease Service Staff!!**

### **Infectious and Zoonotic Disease Program:**

Joseph Aiello—Program Manager  
Stefani Smith—Clerk Typist

